

**REMARKS**

The Non-Final Office Action mailed from the Patent Office on March 19, 2007, has been reviewed and the Examiner's comments carefully considered. Prior to this paper, claims 13-31, 33-35, 38-46 and 51-56 were pending, with claims 21-32, 34, 36, 38 and 41-46 being withdrawn. By this paper, Applicants cancel claims 53 and 56, and add claim 57. Therefore, claims 13-31, 33-35, 38-46 and 51-52, 54-55 and 57 are now pending.

Applicants respectfully submit that the present application is in condition for allowance for at least the reasons that follow.

**Claim Rejections Under 35 U.S.C. § 112, First Paragraph**

In the Office Action, claims 13-31, 33-35, 38-46 and 51-56 stand rejected under 35 U.S.C. § 112 as containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In order to advance prosecution, and without prejudice or disclaimer, Applicants hereby cancel claims 53 and 56, amend claim 55, and traverse the rejections of the remaining claims.

In traversing the rejection, Applicants rely on MPEP §2106(V)(B), entitled "Determining Whether the Claimed Invention Complies with 35 U.S.C. §112, First Paragraph Requirements," subsection 1, which states, immediately after discussing the "reasonable conveyance" requirement (see Office Action) that, the "claimed invention subject matter need not be described literally, i.e., using the same terms, in order for the disclosure to satisfy the description requirement." (Emphasis added) Applicants respectfully submit that the claims of the present invention find sufficient written description in the as-filed specification, because the skilled artisan would have recognized that teachings in the specification convey a description of the claim terms at issue.

Specifically, the disclosure of Fecralloy as a suitable alloy for use in some embodiments of the invention satisfies the written description requirement for the pending

claims. Applicants previously indicated that support for the amendments to the claim set presented in the Response of December 19, 2006, was present at least on page 2, lines 21-27 of the application as originally filed. Applicants pointed out that their application teaches that heat-resistant stainless steel fiber bundles incorporated in the fiber web may be composed of Fecralloy®. Applicants relied on the disclosure that the web could be composed of Fecralloy for support for the claim amendments and new claims. With this backdrop, Applicants hereby detail how each of the pending claims at issue are supported by the specification as originally filed.

**Claim 13:** Regarding claim 13, in which the recitation at issue is that “the stainless steel fibers are made from a high temperature alloy.” It was known to the skilled artisan that Fecralloy is a high temperature alloy, and that the disclosure of Fecralloy simultaneously disclosed a high temperature alloy.

Applicants point to U.S. Patent No. 4,780,445 to Jung (presented and highlighted in Appendix A) to evince this fact. Specifically, col. 2, lines 53-54, includes the reference to:

a “high temperature alloy such as the Kanthal or Fecralloy type alloys, . . .”

(Col. 2, lines 53-54, emphasis added.) The '445 patent was published in 1988, almost a full decade prior to the filing of the Belgian priority application. Accordingly, the skilled artisan, as of the filing date of the present application, would have recognized that the disclosure of Fecralloy disclosed a “high temperature alloy.” Therefore, claim 13 is supported by the specification as originally filed.

**Claim 52:** Regarding claim 52, in which the recitation at issue is that “the stainless steel fibers are made from a high temperature oxidation resistant alloy.” It was known to the skilled artisan that Fecralloy is a high temperature oxidation resistant alloy, and that the disclosure of Fecralloy simultaneously disclosed a high temperature oxidation resistant alloy.

Applicants point to U.S. Patent No. 4,288,346 to Hunter (presented and highlighted in Appendix B) to evince this fact. Specifically, col. 2, lines 58-59, includes the reference to:

**"[h]igh temperature oxidation resistant alloys,** e.g. the 'Kanthal' and  
**'Fecralloy'** types, . . . . "

(Col. 2, lines 58-59, emphasis added.) The '346 patent was published in 1981, over 15 years prior to the filing of the Belgian priority application. Accordingly, the skilled artisan, as of the filing date of the present application, would have recognized that the disclosure of Fecralloy disclosed a "high temperature oxidation resistant alloy."

**Claim 54:** Regarding claim 54, in which the recitation at issue is that the "stainless steel fibers have an elemental composition consisting essentially of Al, Cr, Y and a balance Fe." It was known to the skilled artisan that Fecralloy has this elemental composition.

Applicants point to U.S. Patent No. 4,289,652 to Hunter (presented and highlighted in Appendix C) to evince this fact. Specifically, col. 1, lines 52-55, states that:

"for example, U.S. Pat. No. 3,920,583 which describes a catalyst comprising a substrate made of an alloy or **iron, chromium, aluminum and yttrium** (commonly called "**Fecralloy**"), "

(Col. 1, lines 52-55, emphasis added.) The '652 patent was published in 1981, over 15 years prior to the filing of the Belgian priority application.

Applicants further point to U.S. Patent No. 4,127,510 to Harrison (presented and highlighted in Appendix D), which refers to U.S. Patent No. 3,920,583 (presented and highlighted in Appendix E), to evince support for claim 54. Specifically, col. 5, lines 55-58 of '510, which was published in 1978, makes a reference to a material that is:

"sold under the Registered Trade Mark **Fecralloy** which is **described and claimed** in British Patent Application No. 22707/73 (U.S. Pat. No. **3,920,583**)"

(Col. 5, lines 55-58, emphasis added.) Claim 1 of U.S. Patent No. 3,920,583, which was published in 1975, claims

**“an aluminum bearing ferritic steel substrate, an electrically insulating ceramic layer on a surface of said ferritic steel substrate, and a catalytic material supported upon the ceramic layer, *said aluminum bearing steel substrate comprising an alloy of iron, chromium, aluminum, and yttrium,*”**

Additionally, '583 describes an “unoxidised **aluminium bearing ferritic alloy**, specifically that available under the Trade Mark ‘**Fecralloy**,’” at Col. 3, lines 35-37. (Emphasis added.)

Accordingly, between the '652, '510 and '583 patents, it is clear that the skilled artisan would have recognized, at the time that the present application was filed, that Fecralloy has an elemental composition consisting essentially of Al, Cr, Y and a balance Fe.

**Claim 55:** Regarding claim 55, Applicants have amended this claim in order to advance prosecution, to recite that the fibers “have an elemental composition of up to 20% Cr, 0.5 to 12% Al, and 0.1 to 3% Y.”

This recitation is supported by U.S. Patent No. 4,096,095 (presented in Appendix F), at col. 5, lines 21-23.

#### **Request for Rejoinder of Withdrawn Claims**

Claims 21-31, 34, 38, 41-46 stand withdrawn. Applicants submit that the remaining claims are *method claims drawn to a method of making an apparatus along the lines of the considered claims*. Pursuant to MPEP § 821.04 and *In re Ochiai*, 71 F.3d 1565 (Fed. Cir. 1995), it is respectfully requested that these claims be rejoined and considered, since MPEP § 821.04 states that “when a product claim is found allowable, applicant may present claims directed to the process of making and/or using the patentable product.”

In view of the above, Applicants note that of the withdrawn claims, claims 21, 27, 33, 34 and 41-46 ultimately depend from claim 13. Applicants respectfully request that these

claims be rejoined and allowed at least due to their dependency from claim 13, a claim that is allowable.

As to the remaining claims, Applicants submit that these claims are allowable for at least the reasons that make the claims under consideration allowable. Applicants respectfully submit that no significant burden is placed on the PTO by rejoining and examining all the withdrawn claims. Indeed, many of the withdrawn claims explicitly recite recitations consistent with the above arguments. (For example, claim 22 affirmatively recites that the membrane is not sintered and that the fiber is made from a high temperature alloy.)

**Prior Arguments**

In the interests of brevity, Applicants have not repeated all of their prior arguments relating to the patentability of the present claims. Applicants hereby incorporate those prior arguments herein by reference in their entirety.

**New Claims**

As seen above Applicants have added new claim 57. Claim 57 depends from claim 13, and is allowable for at least this reason. Further, claim 57 recites that the stainless steel fibers contain chromium and aluminum.

**Conclusion**

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment,

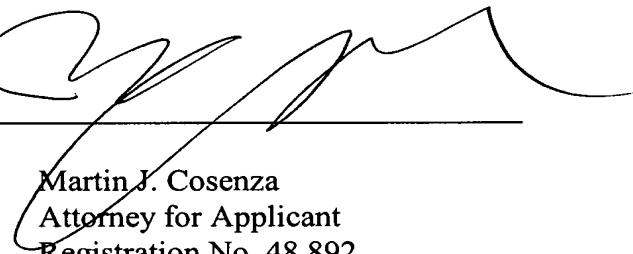
to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Examiner Cole is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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By



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